

REMARKS**I. Status**

In the Office Action mailed November 15, 2005, the Examiner noted that claims 1-19 and 21-36 were pending and rejected claims 1-19 and 21-36. Claim 1 has been amended and claim 12 canceled.. Thus, In view of the foregoing, claims 1-11, 13-19 and 21-36 remain pending for reconsideration, which is requested. No new matter has been added. The applicant respectfully traverses the rejection.

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II. Present Invention and Cited References

Claims 1-19 and 21-36 recite to a method for conducting an electronic negotiation which allows for "multiple-attribute compromise" and which "is guaranteed to terminate". The prior art cited by the Examiner does not disclose these features either separately or in combination.

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Bigus et al. discloses an intelligent agent with negotiation capability including a feature which randomizes one or more aspects of the agent's behavior to disguise its negotiation strategy. *Bigus et al.* is silent as to "multiple-attribute compromise" and does not discuss the problem of termination.

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Roderick discloses a method for improving content and delivery of a storage device. *Roderick*, which is related to the field of data processing, does not disclose or suggest any apparatus or method of electronic negotiation.

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Parunak et al. discloses a computer system for market-based constraint optimization, as may be used in areas such as product design, manufacturing scheduling, route planning, logistics management, or where constraint satisfaction problems exist. The process of constraint optimization of *Parunak et al.* is unrelated to the problem of electronic negotiation between two agents as disclosed in the present invention. Thus, *Parunak et al.* does not disclose or suggest any apparatus or method of electronic negotiation.

Shkedy discloses a method and apparatus for facilitating buyer-driven purchase orders on a commercial network system. *Shkedy* is silent as to "multiple-attribute compromise" and does not discuss the problem of termination. *Shkedy* does not support electronic negotiation.

5 *Ausubel* discloses computer implemented methods and apparatus for auctions. *Ausubel* which is concerned with providing support for auctions, does not disclose or suggest techniques or procedures relevant to the field of electronic negotiation.

10 III. Rejection of claims under 35 U.S.C. § 103

Claims 1-13, 16-19, 21-36 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Bigus et al.* (U.S. Patent No. 6,401,080) in view of *Roderick* (U.S. Patent No. 6,605,121) in further view of *Parunak et al.* (U.S. Application Publication No. 20020013631). The applicants respectfully traverse the rejections.

15 Claim 1, as amended, requires, in part, "a method ...guaranteed to terminate ... wherein the second negotiating party and the first negotiating party continue to exchange counter-offers until each attribute is agreed to or the failed negotiation is declared". The sections of *Bigus*, *Roderick*, or *Parunak* are silent as to the problem of termination. In particular, neither of these cited references discloses, as recited in claim 1, as amended, a method: "wherein one or more attributes from the set of attribute-value pairs are introduced with a corresponding range of values and each counter-offer reduces the range of values for at least one attribute that was previously introduced, by narrowing a gap between values for a previously introduced attribute or by introducing a new attribute from the set of attribute-value pairs". Neither of the references, *Bigus*, *Roderick*, or *Parunak* discloses this element recited in claim 1.

Claim 1 requires, in part, "a step of offering, wherein the second negotiating party offers to negotiate one or more attributes for the product listed in the advertisement; a step of counter-offering, wherein the first negotiating party responds to the offer with a first counter-offer; and a 5 step of displaying at least one of a second set of attribute-value pairs to the second negotiating party." The Examiner mistakenly characterizes *Bigus* as teaching that:

10 "a second negotiating party offers to negotiate one or more attributes for the product listed in the guide ... parties continue to exchange counter offers until each attribute is agreed to"
Office Action, page 2.

15 Applicants assert that *Bigus* teaches negotiating a price, but it does not teach or suggest negotiating one or more product attributes, as required by claim 1. (See Col. 8, Ins. 53-54; cols. 10-18; figs. 5-6 of *Bigus*). In fact, *Bigus* merely teaches a method that includes deciding which price to offer or to accept in a particular transaction based on a database of products and values. Col. 19, Ins. 3-10 and 55-56. However, claim 1 requires actually negotiating one or more product attributes.

20 As stated in the Background to the Invention of the Specification, the simple negotiation protocols of the prior art do not allow for "multiple-attribute compromise" (page 1, lines 28-29). None of the sections of *Bigus* cited by the Examiner disclose the elements for multiple-attribute compromise as recited in claim 1. Column 19, lines 1-10 of *Bigus* discloses 25 a database of values and delta values such as may be used in an "automotive buyer's guide". However, an "automotive buyer's guide" has nothing to do with a negotiation protocol and *Bigus* is silent as to "attribute-value pair including an attribute and range of values for the attribute" as recited in claim 1. Column 3, lines 6-15, column 10, lines 26,25 and column 30 10, lines 62-67 of *Bigus* disclose an algorithm for an agent selecting a price for negotiation. However, these sections do not disclose "attribute-value pair

Including an attribute and range of values for the attribute" as recited in claim 1.

No section of *Bigus*, *Roderick*, or *Parunak* teaches or suggests negotiating a product attribute of a set of attribute-value pairs, as required by 5 claim 1. Furthermore, no sections of *Bigus*, *Roderick*, or *Parunak* teaches or suggests a system capable of "multiple-attribute compromise" as recited in claim 1. Therefore, at least for the above reasons, the combination of *Bigus*, *Roderick*, and *Parunak* does not teach or suggest all of the claimed limitations.

10 Claim 1 also requires, in part, "a step of advertising ... the advertisement comprising a set of attribute-value pairs, each attribute-value pair including an attribute and a range of values for the attribute, for the product listed in the advertisement." The Examiner admits that *Bigus* does not teach or suggest this limitation, but contends that *Roderick* discloses 15 "advertisements that may be part of a buyers guide (col 12, lines 38-55) and listings by a negotiating party (col 10, lines 55-66)." Office Action, page 3. At the passages cited by the Examiner, *Roderick* teaches:

20 "... the user requesting the product ... learned of the information page through an advertisement in a particular publication" Col. 12, lns. 44-46.
However, this is not the same limitation as the claimed limitation. More specifically, the cited passages do not teach or suggest an advertisement comprising a set of attribute-value pairs, each attribute-value pair including an attribute and a range of values for the attribute for the 25 product listed, as required by claim 1. *Roderick* merely teaches the user finding out about the URL address of the information page through an advertisement. It does not advertise a set of attribute-value pairs, nor does it advertise a range of values therefore. Therefore, at least for the above reasons, the combination of *Bigus*, *Roderick*, and *Parunak* does not teach or 30 suggest all of the claimed limitations, and the 35 U.S.C. § 103(a) rejection of claim 1 should be withdrawn.

Claim 1 also requires, in part, "a step of looking up, wherein the product listed in the advertisement is located for a second negotiating party."

The Examiner admits that *Bigus* in view of *Roderick* does not teach or suggest this limitation, but contends that *Parunak* discloses "a look-up for comparing the sale and buying for negotiation." Office Action, page 4. At the passage cited by the Examiner, *Parunak* teaches:

5 "A variable agent also performs the functionality of block 260 wherein the variable agent compares the offerings of multiple constraint agents that competing on one side of the transaction (e.g., sellers) and presents a summary and recommendation to the constraint agents on the other side (e.g., buyers). As indicated at block 264, the variable agent summarizes the bids on the one side of a transaction (e.g., from sellers) in terms of a representation of their relative overlap with the other side of the transaction and the maximum possible gain of utility over cost that they offer the other side." Paragraph [0091].

10 In other words, *Parunak* teaches an agent that compares offerings of multiple sellers and presents a summary and recommendation to the buyers' agents. However, this is not the same limitation as the claimed limitation. More specifically, the cited passage does not teach or suggest looking up or locating a product listed in an advertisement. *Parunak* does not teach or

15 suggest the step of looking up, wherein the product listed in the advertisement is located, as required by claim 1. Therefore, at least for the above reasons, the combination of *Bigus*, *Roderick*, and *Parunak* does not teach or suggest all of the claimed limitations, and the 35 U.S.C. § 103(a) rejection of claim 1 should be withdrawn.

20 Claim 1 further requires, in part, "a step of displaying at least one of a second set of attribute-value pairs to the second negotiating party" The Examiner does not rely on *Bigus*, *Roderick*, or *Parunak* as teaching or suggesting this limitation. Applicants assert that the cited references, taken alone or in combination, do not teach or suggest this element of claim 1.

25 Therefore, at least for the above reasons, the combination of *Bigus*, *Roderick*, and *Parunak* does not teach or suggest all of the claimed limitations, and the 35 U.S.C. § 103(a) rejection of claim 1 should be withdrawn.

Therefore, at least for the above reasons, the combination of *Bigus*, *Roderick*, and *Parunak* does not teach or suggest all of the claimed limitations.

Claims 2-13 and 16 are dependent, directly or indirectly, from base claim 1, and thus inherit all of its limitations. As noted above, the combination of *Bigus*, *Roderick*, and *Parunak* fails to teach or suggest all of the limitations of base claim 1. Consequently, the combination of references also fails to teach or suggest all of the limitations of claims 2-13 and 16. Likewise, for the same reasons claims 21-36 distinguish over the prior art.

Accordingly, Applicant respectfully requests that the Examiner withdraw the 35 U.S.C. § 103(a) rejection of claims 2-13 and 16 and 21-36.

Claim 17 requires, in part, “[an] advertising step compris[ing] listing a set of attribute-value pairs for the product, wherein each attribute-value pair includes an attribute and a negotiable list of values for the attribute.” As noted above, *Bigus* only teaches negotiating a price, but does not teach or suggest negotiating each attribute of a set of attribute-value pairs, as required by claim 17. Neither *Bigus*, *Roderick*, *Parunak*, nor any combination thereof, teaches or suggests this claimed limitation. For at least the above reasons, the combination of cited references does not teach or suggest all of the claimed limitations. Accordingly, Applicant respectfully requests that the Examiner withdraw the 35 U.S.C. § 103(a) rejection of claim 17.

Claim 17 also requires, in part, “offering to electronically negotiate one or more attributes from the attribute-value pairs for the product, wherein the offering step comprises proposing the second negotiating party’s list of values for a first attribute from the set of attribute-value pairs.” The Examiner does not rely on *Bigus*, *Roderick*, or *Parunak* as teaching or suggesting this limitation. Applicants assert that the cited references, taken alone or in combination, do not teach or suggest this element of claim 17.

Accordingly, Applicant respectfully requests that the Examiner withdraw the 35 U.S.C. § 103(a) rejection of claim 17.

Claim 17 further requires, in part, “conducting one or more additional counteracting steps until one of: each attribute from the attribute-value pairs is

agreed to, and the failed negotiation is declared, wherein the second negotiating party and the first negotiating party alternate conducting the countering steps until one of: each attribute from the attribute-value pairs is agreed to, and the failed negotiation is declared." The Examiner does not

5 rely on *Bigus, Roderick, or Parunak* as teaching or suggesting this limitation. Applicants assert that the cited references, taken alone or in combination, do not teach or suggest this element of claim 17. Accordingly, Applicant respectfully requests that the Examiner withdraw the 35 U.S.C. § 103(a) rejection of claim 17.

10 Claims 18 and 19 depend, directly or indirectly, from base claim 17, and thus inherit all of its limitations. As noted above, the combination of *Bigus, Roderick, and Parunak* fails to teach or suggest all of the limitations of base claim 17. Consequently, the combination of *Bigus, Roderick, and Parunak* also fails to teach or suggest all of the limitations of claims 18 and

15 19. Accordingly, Applicant respectfully requests that the Examiner withdraw the 35 U.S.C. § 103(a) rejection of claims 18 and 19.

Claim 14 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Bigus et al.* (U.S. Patent No. 6,401,080) in view of *Roderick* (U.S. Patent No. 6,605,121) in further view of *Parunak et al.* (U.S. Application Publication No. 20020013631) as applied to claim 1 above, and further in view of *Ausbel* (U.S. Patent No. 5,905,975). The applicants respectfully traverse the rejections. The Examiner admits that *Bigus et al., Roderick, and Parunak et al.* do not explicitly disclose "a declaration of a failed negotiation.

20 For this proposition, the Examiner cites to column 20, lines 30-35 of *Ausbel*. However, this section of *Ausbel* discloses a stop rule for electronic negotiation and does not disclose a "first counter-offer" including "a declaration of a failed negotiation due to the second negotiating party failing to comply with the negotiation protocol, whereby the failed negotiation is

25 declared" as recited in claim 15. The section of *Ausbel* directed to auctions is silent as how to terminate an electronic negotiation.

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Claim 15 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Bigus et al.* (U.S. Patent No. 6,401,080) in view of *Roderick* (U.S.

Patent No. 6,605,121) in further view of Parunak et al. (U.S. Application Publication No. 20020013631) as applied to claim 1 above, and further in view of Shkedy (U.S. Patent No. 6,260,024). The applicants respectfully traverse the rejections. The Examiner admits that Bigus et al., Roderick, and

5 Parunak et al. do not disclose "delivery as finalized". The Examiner cites to column 5, lines 37-42 of *Shkedy* for disclosing "delivery as finalized". However, claim 15 recites "declaration of a failed negotiation". The "delivery" of *Shkedy* refers to picking a delivery date for a seller to delivery a part to a buyer. This is totally unrelated to "declaration of a failed

10 negotiation" as recited in claim 15. *Shkedy* does not disclose or suggest any methods or apparatus for electronic negotiation. Thus, *Bigus et al.*, *Roderick*, *Parunak et al.* and *Shkedy* separately or in combination do no disclose "delivery as finalized" as recited in claim 15.

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IV. Conclusion

Claims 1-11, 13-19, and 21-36 are believed to be in condition for allowance. Applicants respectfully requests reconsideration and prompt issuance of the present application. Should any issue remain that prevents
5 immediate issuance of the application, the Examiner is encouraged to contact the undersigned attorney to discuss the unresolved issue.

Respectfully submitted,

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25 **CERTIFICATE UNDER 37 C.F.R. 1.8**
The undersigned hereby certifies that this paper or papers, as described herein, is being transmitted to the United States Patent and Trademark Office facsimile number 571-279-8300 on this 14th day of January, 2006.

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